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(71) Applicant(s)

Gerard Francis Robinson  
24 Upper Churchtown Road, Churchtown, Dublin 14,  
Ireland

(72) Inventor(s)

Gerard Francis Robinson

(74) Agent and/or Address for Service

MacLachlan & Donaldson,  
C/o John Orchard & Co Staple Inn Bldgs North,  
High Holborn, London WC1V 7PZ, United Kingdom

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(56) Documents Cited

GB 2295866 A GB 2289924 A GB 2136288 A

(58) Field of Search

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(54) Abstract Title

Multi-sized sealing member

(57) A multi-sized sealing member for sealing a joint between horizontal and vertical surfaces has a main limb 10 with faces 13 and 14 which can be fixed and/or sealed to a vertical surface and first and second outer limbs 15 and 16 which can be fixed and/or sealed relative to a horizontal surface. Weakening recesses 17 and 18 allow either of the outer limbs 15 and 16 to be readily removed from the main limb 10 and the height of the recesses 19 and 20. The first 13 and second 14 main limb faces have ribs 21 and recesses 22 for retention of sealant/adhesive. The profile of the upper faces 23 and 24 of the outer limbs 15 and 16 are adapted to throw off liquid. The profile of the lower faces 25 and 26 of the outer limbs 15 and 16 are adapted to accommodate and retain a sealing material.

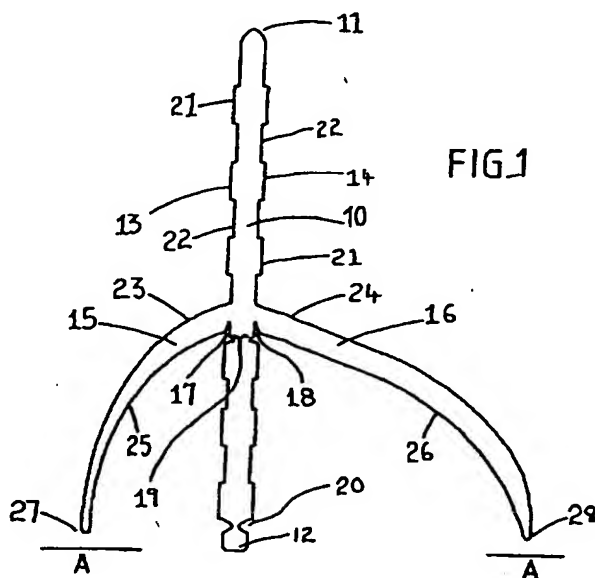


FIG 1

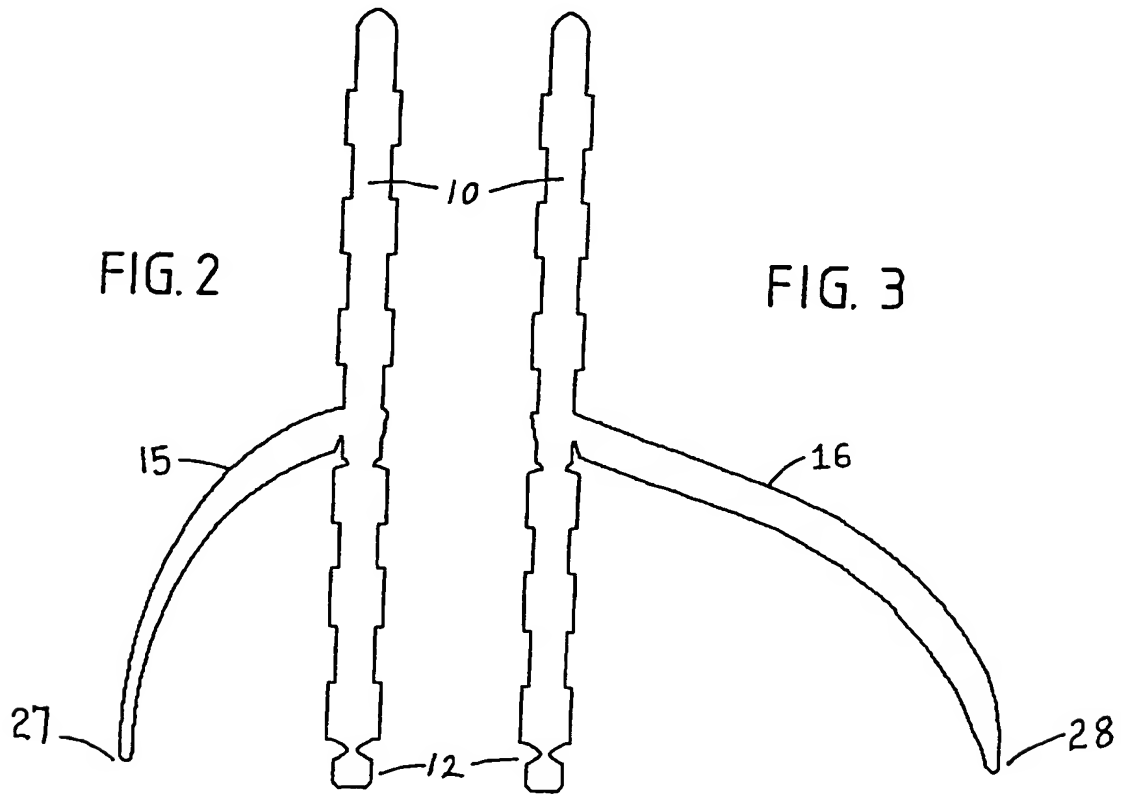
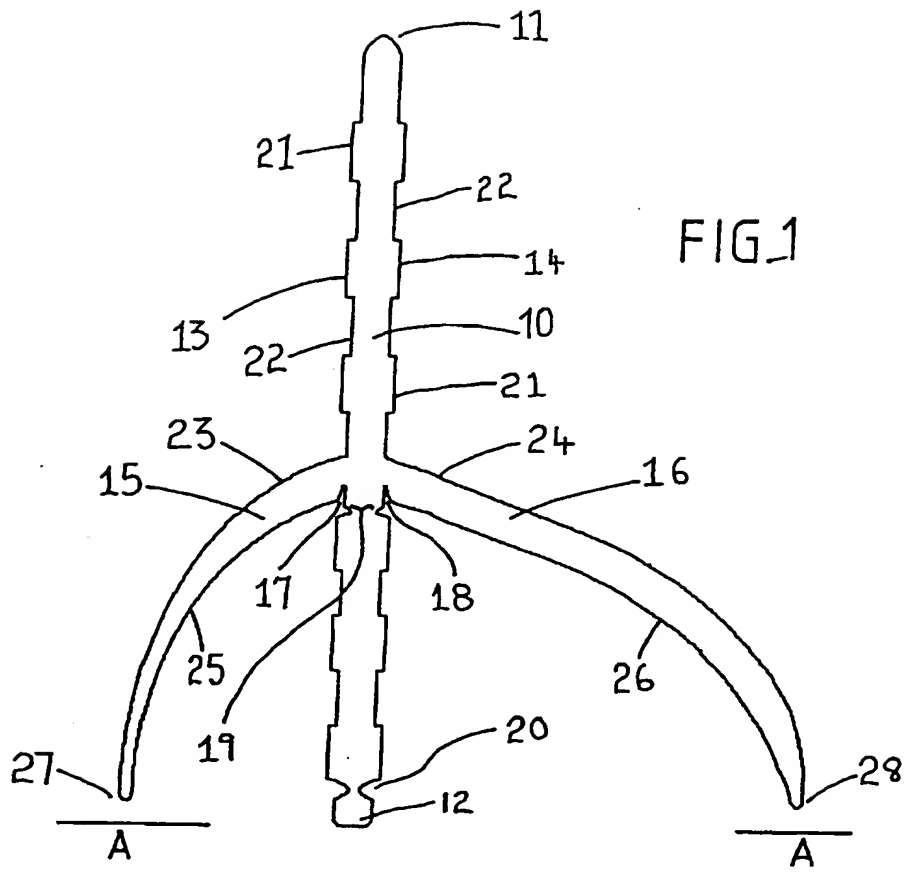


FIG. 4

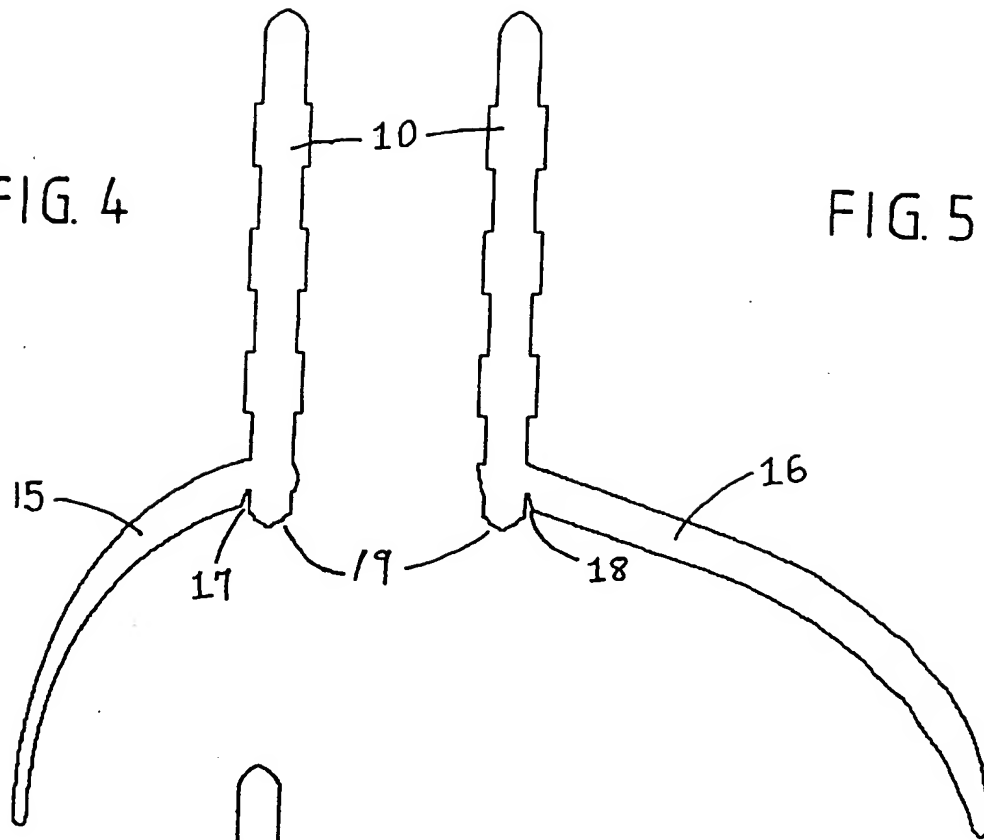
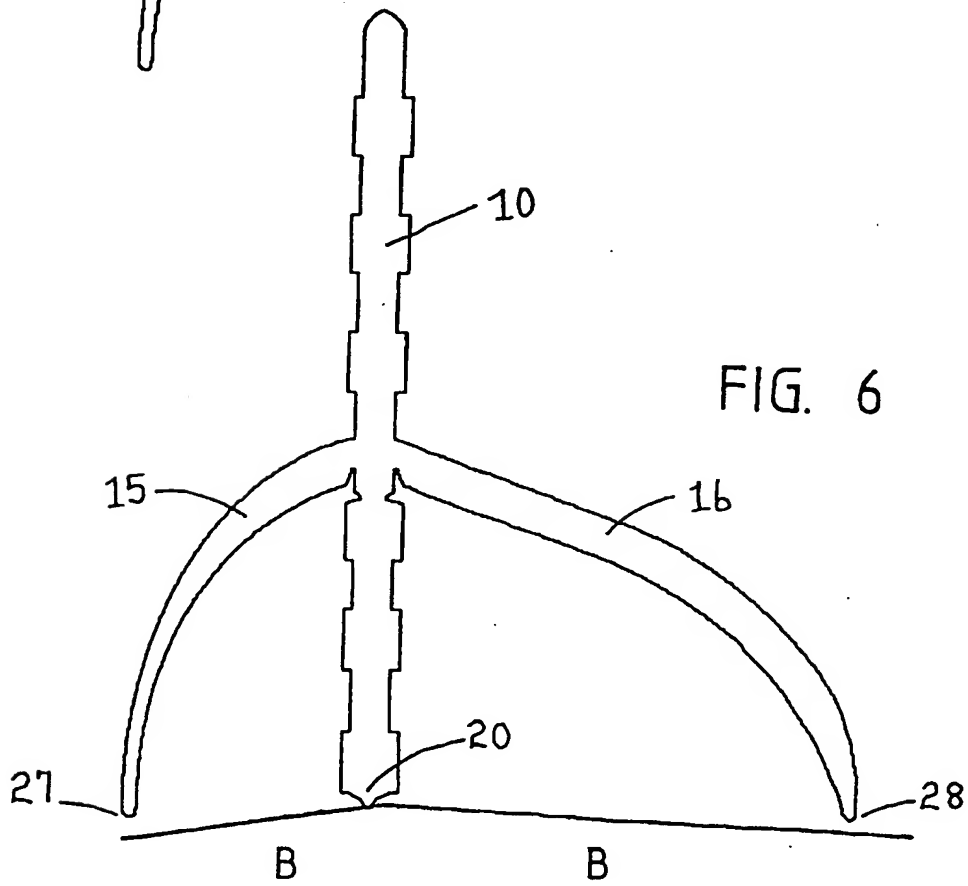
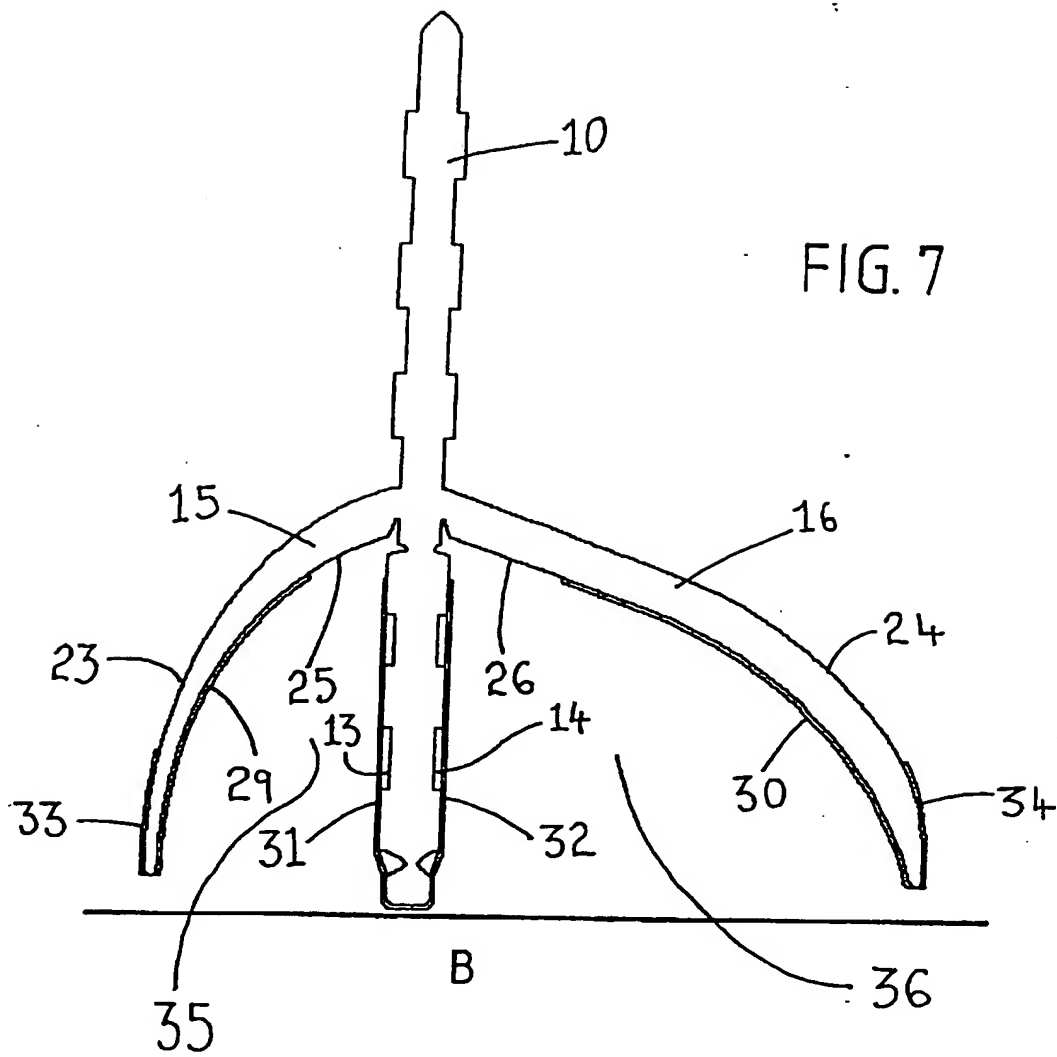


FIG. 5





SEALING MEMBER

The present invention relates to a seal for sealing the joint between two contiguous surfaces disposed at an angle to each other, such as, but not limited to the horizontal joint  
5 between a tiled wall and a shower tray or bath.

The main prior art methods of sealing the junction of walls and horizontal surfaces (such as shower trays, baths and worktops) are as follows.

10 **METHOD A:** Semi-rigid (typically uPVC) quadrant or scotia type profile sealing strips, have soft butyl rubber sealing lips attached to the upper most and/or outer most boundaries, are surface mounted or recessed into the wall surface.

**METHOD B:** A sealant material (typically silicone, acrylic, or latex based) is extruded  
15 into or over the horizontal or vertical joint

**METHOD C:** Quadrant tiles are laid over the horizontal or vertical joint.

**METHOD D:** A flexible silicone/Upvc based tape has a peel off paper back adhesive  
20 strip with a score line indicating the bending location, is fixed over the joint

**METHOD E;** A two part interlocking sealing strip is fixed onto each surface defining the joint.

25 The main disadvantages of the above arrangements are that joints come in various widths, and very often seals suitable for surface mounted installations (over tiles) are too narrow or wide to suit recessed installations (behind tiles).

It is the object of this invention to provide a sealing member that may readily installed, and  
30 adapted to overcome or substantially reduce the aforementioned problems.

According to the present invention there is a multi-sized sealing member adapted to maintain a sealed joint between relatively vertical and horizontal surfaces, the sealing member comprising a first substantially rigid main upper limb having an upper and lower boundary between which there extends on each side first main limb face and a second main limb face, both of which are adapted to be fixed and/or sealed to a relatively vertical surface, and from which said main limb first face and main limb second face, and/or boundaries, there extends at least one first face outer limb and at least one second face outer limb respectfully, each having upper and lower faces, the lower faces being adapted to be fixed and/or sealed to a relatively horizontal surface.

Preferably, the first face outer limb and/or the second face outer limb are adapted to be easily removed from the main upper limb.

Advantageously, the height of the main upper limb defined as the distance between the upper and lower boundaries is adapted to be reduced through the easy removal of longitudinal sections thereof.

Preferably, wherein the first face outer limb and/or the second face outer limb are individually sized to provide an option of at least two different sealing limb profiles and/or widths for the horizontal surface, as specific joint widths may prefer.

Advantageously, the first main limb is adapted to maintain a sealed engagement with vertical surface through the provision of ribs and/or recesses to form sealant reservoirs between the vertical surface and adjacent main limb face.

It should be understood the outer limbs are adapted to maintain a sealed engagement with horizontal surface through the provision of retaining a sealing material between the horizontal surface and the adjacent outer limb lower face.

In another embodiment the main limb and/or outer limbs or parts thereof are wholly or partially layered with an anti adherent material to provide a releasable engagement between the seal member or parts thereof, and the sealing material.

- 5 Alternatively, the upper boundary of the first main limb and/or the outer boundaries of the outer limbs are adapted to maintain a sealed engagement with vertical and horizontal surfaces respectfully, through the attachment of flexible sealing lips.

- 10 The invention will hereinafter be more particularly described with reference to the accompanying drawings, which show by way of example only, embodiments of the seal according to the invention, in these drawings -:

Figures 1 represents a sectional view of the unaltered sealing member.

- 15 Figure 2 represents a sectional view of a first embodiment being the removal of the second face outer limb.

Figure 3 represents a sectional view of a second embodiment being the removal of the first face outer limb.

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Figure 4 represents a sectional view of a third embodiment incorporating the first embodiment (fig 2) with the removal of a longitudinal section of the main limb.

- 25 Figure 5 represents a sectional view of a fourth embodiment incorporating the second embodiment (fig 3) with the removal of a section of the main limb.

Figure 6 represents a sectional view of a fifth embodiment being the removal of a longitudinal section of the main limb.

- 30 Figure 7 represents the sealing member detailer in Fig. 1, wherein the sealing member is partially layered with an anti-adherent material.

Figure 1 details a section the sealing member upper main limb 10 with an upper boundary 11 and a lower boundary 12 between where there extends first face 13 and a second face 14. Extending from the main limb first 13 and second 14 faces are a first outer limb 15 and a second outer limb 16 respectively.

The first outer limb 15 and a second outer limb 16 are adapted to be easily removed from the main upper limb 10 through the weakening recesses 17 and 18 respectively. The height of the main limb 10 may be reduced through the easy removal of longitudinal sections typically defined by weakening recesses 19 and 20 in the main limb.

The first 13 and second 14 main limb faces are adapted to retain a sealing/adhesive material through ribs 21 and recesses 22. The profile of the upper faces 23 and 24 of the outer limbs 15 and 16 respectively are adapted to throw off liquid. The profile of the lower faces 25 and 26 of the outer limbs 15 and 16 respectively are adapted to accommodate and retain a sealing material.

The purpose of weakening recess 20 in the main upper limb 10 is to lower the outermost boundary points of limbs 15 and 16 respectfully onto the horizontal surface A if desired.

Figure 2 details the removal of outer limb 16 from the main upper limb 10. The typical purpose of executing this option is that the distance between the outermost boundary line 27 of the first outer limb 15 and the lowermost boundary point 12 of the main upper limb 10, is the preferred seal width for the particular installation.

Figure 3 details the removal of outer limb 15 from the main upper limb 10. The typical purpose of executing this option is that the distance between the outermost boundary line 28 of the second outer limb 16 and the lowermost boundary point 12 of the main upper limb 10, is the preferred seal width for the particular installation.

Figures 4 and 5 detail the removal of a longitudinal section of the main upper limb 10 below the weakening recess 19. The typical purpose of executing this option is to prevent the lower part of the upper main limb 10 below weakening recess 19, interfering with an existing seal or material that is desired to be overlapped in a replacement installation.

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Figure 6 details the seal member as described in figure 1 with a section of the upper main limb 10 below weakening recess 20 removed, thus the distance between lower most points 27 and 28 of the outer limbs 15 and 16 respectively is reduced. The typical purpose of executing this option is that ledges B of some baths and shower trays are sloped or

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Figure 7 details the seal member partially layered with an anti-adherent membrane. The lower faces of the outer limbs 15 and 16 are partially layered with anti-adherent membranes 29 and 30 respectively. The main upper limb 10 is partially layered with anti-adherent membranes 31 and 32 on the first 13 and second 14 faces respectively.

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The purpose of layering the surfaces 29, 30, 31, and 32 with an anti-adherent material is to form a releasable shuttering for sealing material that may be applied into the cavities 35 and 36 formed between the outer limbs 15 and 16, their respective main upper limb 10 first 13 and second 14 faces and their respective adjacent horizontal surface B, thereby providing continuous up-standing containment cavities 35 and 36 respectively for the applied sealant that will form a boundary wall, bonded to the horizontal surface B, yet wholly or partially independent and/or releasable from the seal member to which initially attached.

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Anti-smear membranes 33 and 34 are partially layered onto upper faces 23 and 24 of the outer limbs 15 and 16 respectively.

**CLAIMS:**

1. A multi-sized sealing member adapted to maintain a sealed joint between relatively vertical and horizontal surfaces, the sealing member comprising a  
5 first substantially rigid main upper limb having an upper and lower boundary between which there extends on each side first main limb face and a second main limb face, both of which are adapted to be fixed and/or sealed to a relatively vertical surface, and from which said main limb first face and main limb second face, and/or boundaries, there extends at least one first face outer  
10 limb and at least one second face outer limb respectfully, each having upper and lower faces, the lower faces being adapted to be fixed and/or sealed to a relatively horizontal surface.
2. A sealing member as claimed in claim 1 wherein the first face outer limb  
15 and/or the second face outer limb are adapted to be easily removed from the main upper limb.
3. A sealing member as claimed in any one of the preceding claims, wherein the  
20 height of the main upper limb defined as the distance between the upper and lower boundaries is adapted to be reduced through the easy removal of longitudinal sections therefrom.
4. A sealing member as claimed in any one of the preceding claims, wherein the  
25 first face outer limb and/or the second face outer limb are individually sized to provide an option of at least two different sealing limb profiles and/or widths for the horizontal surface, as specific joint widths may prefer.
5. A sealing member as claimed in any one of the preceding claims, wherein the  
30 first main limb is adapted to maintain a sealed engagement with vertical surface through the provision of ribs and/or recesses to form sealant reservoirs between the vertical surface and adjacent main limb face.

6. A sealing member as claimed in any one of the preceding claims, wherein the outer limbs are adapted to maintain a sealed engagement with horizontal surface through the provision of retaining a sealing material between the horizontal surface and the adjacent outer limb lower face.  
5
7. A sealing member as claimed in any one of the preceding claims, wherein the main limb and/or outer limbs or parts thereof, are wholly or partially layered with an anti adherent material to provide a releasable engagement between the seal member or parts thereof, and the sealing material.  
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8. A sealing member as claimed in any one of the preceding claims, wherein the upper boundary of the first main limb and/or the outer boundaries of the outer limbs are adapted to maintain a sealed engagement with vertical and horizontal surfaces respectfully, through the attachment of flexible sealing lips.  
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9. A method of sealing joints between two surfaces disposed at an angle to each other as herein before described with reference to accompanying drawings



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Application No: GB 9824812.3  
Claims searched: 1 - 8

Examiner: Tom Sutherland  
Date of search: 11 March 1999

## Patents Act 1977 Search Report under Section 17

### Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.Q): F2B, A4N (N1D), E1D (DF112)

Int CI (Ed.6): F16J 15/02, A47K 3/04, E04F 19/04

Other:

### Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
A	GB 2295866 A (IMAGE TRIM)	
A	GB 2289924 A (MCCOMB)	
A	GB 2136288 A (DISPLAY TILING)	

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.